

CLAIMS

What is claimed is:

1. Method of generating directed motion of liquid by applying un-balanced alternating electric field, which is AC electric field with a zero time averaged component and finite time averaged of the higher than one powers of the electric field strength, to the system of material objects with arbitrary symmetry for inducing electroosmotic flow on the object-liquid interfaces.
2. Method of the Claim 1, wherein the frequency of the AC electric field exceeds Warburg frequency of the several KHz for eliminating Faraday current but is lower than hydrodynamic relaxation frequency
3. Method of the Claim 1, wherein the electroosmosis generating objects have either spherical or cylindrical symmetry and size not exceeding 10 microns.
4. Method of the Claim 1, wherein the system of electroosmosis generating objects is microfluidics device with array of the metal electrodes.
5. Method of the Claim 1, wherein the system of electroosmosis generating objects is microfluidics device with array of the metal obstacles and electric field is applied by the means of external electrodes systems.